SYNCHRONIC MODELS

> Unless anthropology is to interest itself mainly in the unique, exotic, and nonrecurrent particulars, it is necessary that formulations be attempted no matter how tentative they may be. It is formulations that will enable us to state new kinds of problems and to direct attention to new kinds of data which have been slighted in the past. Fact-collecting of itself is insufficient scientific procedure; facts exist only as they are related to theories and theories are not destroyed by facts – they are replaced by new theories which better explain the facts
>
> (Steward 1949: 24).

Few reports on Northwest Coast archaeology have proceeded beyond the realm of culture history thus far outlined. Cultural interpretations, for the most part, have been restricted to a basic review of major manufacturing industries which can be directly observed in the archaeological record. Even in such areas as subsistence strategies, a standard research objective in other regions of North America, there has been a scarcity of interest. For instance, it is hard to believe that over the past quarter of a century only four fully quantified reports of faunal materials from individual sites within the Gulf of Georgia region have been produced (Boehm 1973; Boucher 1976; Imamoto 1976; Monks 1977) and these have been within the past five years. Other topics of a less tangible nature (i.e. social organization, political groupings, religious behaviour) are all but absent. In fact, beyond a single attempt by Matson (1975, 1976e) to provide a broader framework in which to view his materials from the Glenrose Cannery site, and a cursory review by Mitchell (1971), they are absent.

The present section sets forth a synchronic reconstruction of Marpole lifeways. It attempts to review those areas of culture which have been traditionally shunned or written off by regional prehistorians. Specifically, these include four major categories: 1) economic organization and subsistence strategies; 2) socio-political organization; 3) intergroup relations, and 4) religious/ritualistic patterns. Since few of these topics can be addressed on the basis of existing archaeological data, a major portion of subsequent discussion is theoretical, hypothetical and speculative. If resulting interpretations lead to even a single testable model, the section will have served its purpose.

In the following analysis, the basis for most interpretation must be extensive analogy to ethnographic Coast Salish culture. In preceding sections, Marpole is posited as a direct ancestral population to historic peoples and the environmental milieu is suggested to have been identical to that of the present day context. Thus, there is some justification for such analogies. However, the possibilities of differing cultural traits are not ruled out. Given the time depth interval of 1,500 years and the extent of Euro-American acculturation when most ethnographic data were being collected, this is highly probable. In a few cases, alternatives to ethnographically recorded features are proffered.

Here it is recognized that I tread beyond the realm of strict archaeological interpretation as argued for by Abbott (1972) and discussed previously. The material culture of Marpole is taken out of its archaeological abstraction and viewed as a reflection of a cultural system, possibly even a "society". If we do not proceed into this stage of theorizing, then, as Steward (1949) has argued, we must relegate future research to strict descriptive report writing with a minimum of inference.

Economic Organization

Intraregional studies of settlement subsistence patterns within the Gulf of Georgia region have only recently come into interest. The major efforts thus far have focused on faunal analyses (Boehm 1973; Imamoto 1976; Boucher 1976; Monks 1977) and seasonality (Ham and Irvine 1975; Ham 1976). Still, the data which have been collected to date come from diverse areas and time periods and are too few to provide a detailed reconstruction of subsistence modes within various culture types. As well, an attempt to delineate settlement pattern strategies through a strict functional typology of existent assemblages (Thompson 1975, 1977), I believe, has provided minimal new information. Since the present study can neither offer new data nor new forms of analysis, the discussion is limited to a synthesis of available information on Marpole economic organization and a comparison of it to the reported Salishan pattern.

As has been stated in the introductory section, Mitchell (1971: 29) outlines four types of subsistence strategies for the ethnographic culture within the Gulf of Georgia. To briefly recount, these include: northern Gulf diversified fishermen; central and southern Gulf river fishermen; Straits reef-net fishermen, and Puget Sound diversified fisherman. Here it is important to note that access to the Fraser River salmon run is the key defining variable. That is, whereas the first and last adaptive strategies are suited

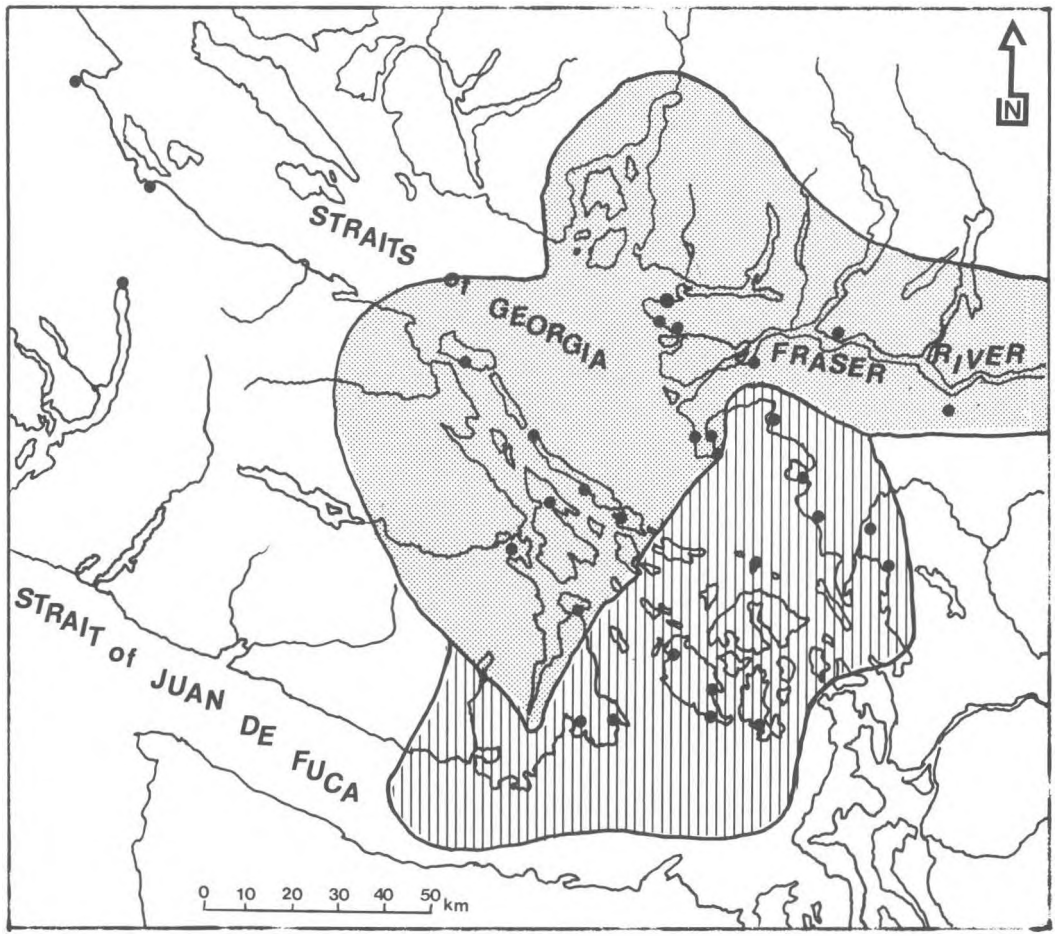

Fig. 13. Distribution of Marpole Sites and Fishing Strategies.

Straits Reef-Net Fisherman

Central and Southern Gulf River Fishermen

to exploitation of lesser runs in localized rivers and creeks, the second and third types intercept the major migratory run of the Fraser. If we compare the spatial extent of Marpole culture type sites with the proposed spatial boundaries for each of these subsistence patterns (Figure 13) an interesting parallel is found. With minor exception, Marpole sites are concentrated within the resource zones of the Straits reef-net and central and southern Gulf fishermen. In fact, as illustrated in the previous discussion of the spatial extent of Marpole, the areas associated with diversified fishing (the northern Gulf and northern Puget Sound subregions) are shown to be peripheral and, as yet, in doubt as to a significant Marpole presence. Therefore, we might argue that from our present knowledge of site distribution, the Marpole culture type is related almost solely to the prime salmon runs of the Fraser River. Mitchell (1971: 52) had earlier come to this conclusion in stating "...it seems the subsistence of the [culture] type was closely identified with the major fish runs of the Fraser River, and it is probable that a mainstay of the economy was the salmon runs, perhaps to even a greater extent than was true of the Gulf of Georgia culture type."

Analyses of faunal material from Marpole components at Glenrose Cannery (Imamoto 1976), Helen Point (Boucher 1976) and Deep Bay (Monks 1977) suggest the range of other fish, bird and mammal species being exploited was identical to that reported for historic peoples. As well, while it is possible that more extensive use of shell fish characterizes components postdating A.D. 1 (Grabert 1978, personal communication), shell fish abundance in even the earliest of Marpole contexts attests to the importance of this resource (Ham 1976: 57). As a result, we may conclude that, at least in types of resources being procured, Marpole peoples differed little from their historic counterparts.

Suttles (1960: 302) has characterized the environment of the Coast Salish as one of both resource abundance and fluctuation. Fluctuation is attributed first to productivity cycles in different fish populations and, to a lesser degree, unpredictable changes in weather. The idea of resource fluctuation has led to several explanatory models of social organization and intraregional relations. Thus, it has important consequences for a theoretical dissertation on Marpole economics and related lifeways. Since the Fraser River salmon runs would appear to be among the most important subsistence resources utilized during the Marpole culture type, to extend such models we should anticipate either major variation in year to year escapement or variation in some other variable affecting procurement.

Both Sneed (1971) and Kew (1976) have looked at the relationships of the Fraser River salmon run and human populations along its major drainage. That both document cyclical behaviour in yearly escapement figures is unquestionable. However, of major importance is not so much the fluctuations of the resource, but the number of spawners returning in a run, the number of species available at any one locale, and the nutritional value of the catch (see Sneed 1971: 231–232; Kew 1976: 4–6). When each of these aspects is investigated, the effect on subsistence pursuits of cyclical fluctuations in salmon populations in the lower Fraser and its approaches is seen to be less than substantial.

Kew (1976) provides us with the most explicit model of "salmon abundance" on the lower Fraser. In the Stalo/Halkomelem zone, all five salmon species were present, albeit in varying quantities. Estimating total poundage for a four year period between 1801 and 1804, he proposes a quadrennial range of between 27.12 million pounds per year and 186.41 million pounds per year. Moreover, these figures are considered to characterize a conservative model which ". . .if and where it errs it does so by underestimating sizes of runs" (1976: 5). If the smaller runs which pass through the Strait of Juan de Fuca destined for waterways other than the Fraser are added to these numbers, we see a pattern of abundance even in the lowest productivity year (in excess of 30 million pounds). As Kew and Sneed point out, however, this situation exists only in the lower Fraser watershed with areas beyond the Fraser Canyon more markedly affected.

Aside from relative abundance, the nutritional value of the salmon resource is highest in the lower Fraser and salt water zones as compared to upriver locales. In fact, since salmon stop feeding upon entering fresh water, there is a linear relationship between distance travelled and caloric value (see Kew 1976: 6). Simply put, the farther a catch is taken from the river mouth, the greater the number of fish required to meet subsistence needs. Sneed (1971) has taken these principles and shown that the salmon resource alone has high predictive value for population size (also see Donald and Mitchell 1975).

While it is one thing to argue for abundance even in low productivity years, it is another to argue for the ability to exploit this resource to its fullest. As Kew (1976: 9) has suggested, where the salmon are most abundant and of highest nutritional value, they also are the least accessible. We know that ethnographic peoples possessed sufficient technology for salmon harvesting in both salt and freshwater micro-environments. The extension of this knowledge back to the beginnings of the Marpole culture type, although not easily proven, is hypothesized.

Returning to the ethnographic exploitation patterns outlined by Mitchell, a more explicit review is necessary. Concerned with only those subtypes correlating with Marpole spatial boundaries, the major distinction is drawn between salmon procurement in salt water prior to the spawning run versus that in freshwater. It is, as Suttles (1951: 6) has observed, a division between those groups procuring salmon through means of a reef-net (Lxungeneng or Straits Salish) and those who do not (Halkomelem). It must also be pointed out that we are not dealing with a strict dichotomy of mainland versus island peoples and adaptations to associated environments. Rather, it is a more complicated relationship with the Fraser River entrance a prime focal point.

The intricacies of reef-net fishing are aptly described by Suttles (1951: 152–222) and, more recently, Stewart (1977: 93–94). Reef-net fishing is a highly cooperative venture requiring six to 12 individuals to work the nets, a minimum of three canoes and several additional onshore people to process the catch. Since the principles of reef-netting rely on tidal currents and passage restrictions, certain locales are better suited than others. Historically, several of the prime reef-netting stations were located on the extensive banks and shoals off of the Point Roberts uplands. These were owned and worked by prestigious family groupings (Suttles 1951: 202–215). In addition, reef-netting was ethnographically reported at several sites in the Gulf and San Juan Islands (Barnett 1955: 86; Suttles 1951: 154).

The major fishing technique for peoples of the lower Fraser is poorly documented. Most of these Halkomelem groups would appear to have moved seasonally upriver to Canyon locales where dip netting could be practised. However, since several archaeological sites on or near the mouth of the river seem to have been used as fishing stations (see Burley 1979b), we might suspect some other strategy in the precontact period. At least two possibilities exist. First, in that a number of the major down river sites are associated with small streams capable of supporting some kind of salmon run (Ham 1979, personal communication), a portion of the subsistence requirement could have

been obtained through weirs or traps. The size of these streams, nevertheless, seems to preclude the acquisition of the total need. The second possibility is the use of a trawl or bag net; a technique which, in principle, parallels the reef-net. In fact, Kew (1976) has suggested that it may have been the evolutionary predecessor of the reef-net. As its name implies, a bag type net would be spread between two canoes and held against the flow of the river. While requiring less cooperation than reef-netting, it remained a group effort.

Historically, a number of additional techniques for salmon procurement were used by Gulf of Georgia peoples. These include trolling by hook and line, basketry traps, harpooning and, possibly, gill netting. Barnett (1955:86) believes the latter to be a Euro-American introduction. These techniques, nevertheless, would appear to be subsidiary to reef and dip netting although each was applicable in varying environmental conditions.

It is not surprising that the Fraser River was a central factor in settlement subsistence strategies. While several groups of Straits speaking Salish gathered annually at Point Roberts to reef-net, Halkomelem speakers from both Vancouver Island and the northern mainland proceeded up the Fraser River to established village sites or fishing stations near the canyon. With regard to the relationships between the aggregation of these groups, it is interesting to note Duff's statements:

> Summer brought an abundance of salmon, and in their wake many hundreds of salt water Indians. Willingly or unwillingly, the Stalo had to share their river and its bounties with outsiders (1952: 25).

Despite the fact that it may have been unwilling, this population congregation must have encouraged activities beyond subsistence pursuits. At least one of major consequence was trade; a topic later discussed in detail.

Since the majority of equipment associated with fishing strategies are manufactured of perishable materials, from archaeological remains it is not readily determined whether Marpole peoples possessed a similar technological capacity. Certainly, the recovery of net fragments and wrapped sinkers from a preMarpole context at Musqueam (Borden 1976b: 247) suggests a major portion may have been present. This is supported by the relatively frequent occurrence at a number of Marpole sites of various sized sinkers, both perforated and grooved, as well as an assortment of needles, bodkins and miscellaneous tools for fibre preparation (see Stewart 1977: 79–80). Furthermore, expansive long occupied sites at Point Roberts (Whalen Farm and Beach Grove), at least by implication, argue for the early practice of reef-net or possibly drag-net fishing in this locale as was the historic case (but see Abbott 1961).

The presence of fish hook shanks and associated barbs in Marpole assemblages at False Narrows (Burley 1979a) suggests the presence of a salmon troll and it seems probable that most other historically reported salmon fishing techniques were known. There is one notable exception. As reported in previous discussions, within early to middle Marpole culture type assemblages composite harpoons are a rarity. While the unilaterally barbed form might be argued as an able substitute for most hunting pursuits, an alternative to those used in fishing has yet to be found. Since harpooning tends to be a solitary type of fishing strategy (Duff 1952: 67; Suttles 1951: 140–1), its absence could signify an emphasis on more cooperative ventures. Duff (1952: 67) lists harpooning as one of the major fishing techniques of upper Fraser River groups.

Turning to other fishing practices, with qualification, it may be hypothesized that those of the Marpole period differed little from the Coast Salish horizon. Most other food fish species have been reported in various faunal analyses including herring, eulachen, rock fish and sturgeon (see Casteel 1976; Boucher 1976). In addition to netting and trolling, it is thought that line and gorge fishing was practised due to a presence of bipointed bone objects with medial constrictions. Large unbarbed bone points may also have served as a centre prong in a leister. Aside from composite fish harpoons, the only other possible absence in fishing gear during Marpole is the herring rake. Herring rakes are paddle-like instruments up to 15 feet long which have sharp pointed teeth inserted in one end to impale their prey. Although the paddle is made of wood and subject to decay, bone unipoints were often employed as teeth (see Carlson 1960: 580). Occurring infrequently in Marpole collections, this implement is assumed absent. Of course, one cannot rule out the possibility of wooden instead of bone points to explain their scarcity.

Of the other major faunal resources, I have noted that the complete range of species exploited by ethnographic peoples was present in Marpole. Carlson (1960: 258) has argued that the abundance of chipped stone projectile points is indicative of a greater dependence on land mammal hunting for food; as a corollary, he implies a shift to ground stone implements in the more recent assemblage signifies the introduction or evolution of a maritime adaptation. While faunal data from the Marpole component at Helen Point supports this hypothesis (Boucher 1976: 114), quantified analyses of faunal remains are too few to fully substantiate this pattern.

At Glenrose Cannery, we find a marked increase in avian fauna at the beginning of the Marpole culture type (Imamoto 1976: 30). It is tempting to suggest that a more intense utilization of this resource correlates with the apparently sudden introduction of finely made barbed antler points. However, a number of alternative site specific explanations are available for the Glenrose materials and it is notable

that such an increased usage has not been documented elsewhere. Among these other possibilities are differential bone preservation between Marpole and earlier components (Matson 1976e: 295) as well as increased avian stocks in the vicinity of the site due to delta progradation. Further analyses are needed to clarify this situation.

To summarize thus far, I have argued that subsistence practices of the Marpole culture type roughly parallel those of the historic Coast Salish. Although a few differences are seen to be present in exploitive technology, there can be little doubt that a major variable in resource scheduling patterns was salmon. Further, when the spatial parameters of Marpole related sites are reviewed, they are found to fall primarily within the boundaries of ethnographic groups who relied heavily on the Fraser River runs and, subsequently, undertook regular migrations to sites in the vicinity of its mouth. Finally, I would question the idea of salmon run fluctuations being significant for cultures within the lower Fraser River economic zone and would prefer a model of salmon abundance after Kew (1976).

The argument for an analogous pattern of resource exploitation between Marpole and historic peoples does not necessarily mean a static settlement pattern over the past 2,500 years. Undoubtedly, there have been a number of developments necessitating shifts for local groups. Among these would be delta progradation, population increase and relations with extralocal cultures. Of the former, we know that delta development must have had a direct impact on foreshore resources and, hence, led to the abandonment of a number of sites. This is most probably the case at the Marpole site (Burley 1979b) and Glenrose Cannery. A second effect of delta progradation would be that of shifting migration paths for salmon entering the Fraser River. Many sites traditionally employed for salmon procurement and processing would probably become unsuitable. Although the consequences of this change are yet to be documented archaeologically, I suspect that future work in the Point Roberts area may shed light on the situation.

The measurement of population increase, external relations and subsequent effects on economic organization is not easily undertaken. Grabert and Larsen (1975), citing Dancey in personal communication, suggest a population boom on the Fraser Delta at roughly A.D. 1. To my knowledge, beyond what seems to be an increased site density for later periods, there is no supportive evidence for this assertion. If it did take place, however, we could expect splintering into new areas and reliance on new technological innovations. In part, this model might explain the introduction of such implements as the salmon harpoon and herring rake. On the other hand, these implements are reported in earlier contexts outside of Marpole boundaries and may be accounted for by alternative considerations.

Turning to aspects of economic organization beyond settlement pattern, from the available evidence it could be suggested that, as with the Coast Salish, Marpole culture had established part time specialists for a number of tasks. The distances travelled by localized groups are indicative of well made water craft and, given the presence of a fully developed woodworking technology, argue for the massive dugout canoes of historic times. Barnett (1955: 111) reports that, although any one could make a canoe, the knowledge involved was a jealously guarded secret with specialization tending to follow family lines.

Similar to the situation for specialists in canoe making is that of more generalized woodworking. Again, although everyone undoubtedly had some ability in this trade, "considerable training" was needed to be proficient, especially in the manufacture of elaborately carved items, boxes and household utensils (Barnett 1955: 107). Since, aboriginally, such implements were thought of as wealth, the exchange of these goods for subsistence resources would probably have been a widespread trait. As will be subsequently discussed, in that the wealth, prestige system has a notable presence in Marpole, we might once again project this pattern into the past.

It is slightly more difficult to argue for part time specialists in subsistence exploits, as was the case historically. However, given the assumed presence of woodworkers and canoe makers, it may not be unreasonable. In fact, the hunting of more aggressive fauna (i.e. bear) or less accessible species such as mountain goat may have demanded some form of specialization. Of course, the degree to which this occurred would be directly proportional to the demand for the commodity.

Finally, the stone sculpture complex in Marpole may have been, at least in part, the work of specialists. That is, since many of the figurine bowls and zoomorphic pendants seem to be related to the spiritual realm of Marpole culture discussed later, its production most probably required specialized knowledge or power. As well, the exotic nature of many raw materials suggests the finished products were undoubtedly viewed as wealth and status items. Again, economic incentives could have selected for specialization by individuals with known abilities.

A concluding aspect of Marpole economic organization which may be addressed is the sexual division of labour. Again, a reliance on, and analogy to, ethnographic information is necessary.

Division of labour within Coast Salish subsistence pursuits was not rigid. Suttles has stated that, while the task may be related to one specific sex, in several instances there were neither taboos nor norms against both sexes taking part. Of this relationship, he reports:

> Men hunted and fished while women gathered shellfish and vegetal foods and preserved the food brought in both by the men and by themselves. But women

> might also fish for some fishes, and men might help women in gathering and in some of the heavier work of preserving (Suttles 1951: 491).

In the realm of craft production and material goods, however, the division was somewhat more defined. In at least a few cases it was exclusive. For instance, Collins (1974: 180) has noted that a male who worked in basketry was likened to a "transvestite". Similarly, it would be highly improbable that women undertook extended efforts in stone working. On a general level, for major manufacturing industries:

> Men worked with wood, stone and bone, dressed skins and made nets. Women made baskets, mats, and blankets, sewed skins and worked with bark. Perhaps the only craft both sexes engaged in was the manufacture of cordage, though women may also have made nets (Suttles 1951: 491).

It is noteworthy that Suttles (1951: 492) has suggested women's crafts provided slightly greater amounts of "pure wealth" than those of men. Baskets, mats, blankets and skins could easily be converted into food resources through potlaching (indirect) or trade (direct). In addition, the labour involved in the preservation of winter food supplies was almost totally carried out by women. We may conclude, then, that the female role in Coast Salish society was one of important magnitude for the production of surplus and the maintenance of the wealth/prestige system in Salish culture.

There seems little reason to propose that the sexual division of labour in Marpole was, to any significant degree, different than the historic case. In particular, a similar range of domestic items is present in recent collections and, with the subsistence economy varying little, we must assume that food preservation was of equal import. The abundant frequencies of ground slate knives at a number of Marpole sites, and their supposed use in the preservation of salmon, would support such a case.

Socio-Political Organization

Of all cultural features, among those most difficult to delineate with archaeological data are aspects of socio-political organization. Here I refer to the major political units of society as well as social organizational principles including kinship and stratification. Unlike economic patterns, these traits are not readily inferred from the archaeological record (see Trigger 1968; Piggot 1959). Attempts to reconstruct such information have thus far met with extreme skepticism. In fact, it might be argued that many aspects of socio-political organization can never be delineated by the archaeologist and should be left to the ethnographer (in particular see Allen and Richardson 1971). Whether or not this is the case could long be debated (Binford 1972; Deetz 1968). However, if we are to progress beyond our theoretical nemesis, the pot sherd/projectile point syndrome, such attempts are worth continuing. With this rationale, the following discussion is tendered.

For historic Coast Salish, Suttles (1951: 271) sets off three basic units of society beyond the family – the household, the community and the tribe. While the former pair are fully accepted by the majority of Gulf of Georgia anthropologists, the concept of a tribe with "self" recognition is more contentious. Barnett (1955: 241), for instance, emphatically states "there was no tribe or state; hence, there were no offences against or loyalty to either". Similarly, Abbott (1972: 269) suggests that tribe may be employed only with certain "misgivings" and "qualifications". Specifically, it is not to be viewed as a politically integrative mechanism with a defined regulatory body. As Olsen (1936: 93) reports for the Quinault, it would be ". . .merely a loose aggregation of villages, without formal organization of any form of centralized authority, with nothing beyond territorial, cultural and linguistic unity to bind its members together".

Not only was there a lack of political organization on the tribal level, this appears to have been the case for the village (community). Coast Salish villages were composed of anywhere from one to several households which, in themselves, seem to have been autonomous. Despite this, it is clear that economic and social ties cross cut and bound village aggregates together.

A village chief *(siep* or *siem),* or that person holding most authority, was the headman of the wealthiest and most prestigious household (Jorgensen 1969: 281; Suttles 1951: 277; Collins 1974: 109). Even so, the position seemed to be more of a social functionary than political leader. His primary role was the organization of potlatches and feasts (Suttles 1951: 277). I suspect, however, such "chiefs" exerted more influence than actually reported due to their control over major resource locales (i.e. reef-netting stations, clam beds, camas patches).

The most integrated social unit above the nuclear family was the winter household. Of its members, Suttles (1951: 272) states:

> The winter household was capable of holding four or more families. Each family occupied a section of the house. Usually a section was the space between two posts on one side of the house. . . .Besides the nuclear family that were the permanent residents of the section, there might be more or less permanent guests. The number of people in each section might vary from a childless couple to more than a dozen people.

While Suttles' remarks refer specifically to Straits peoples, a similar situation is found in ethnographies of various other Coast Salish groups (Collins 1974: 16; Barnett 1955: 59; Duff 1952: 48).

From available ethnographic documentation, it is

possible to isolate three factors which seem to have bound together winter household units. While there exist no mandatory requisites for membership, each of these exerted varying degrees of influence. Here included are:

1) kinship variables – post nuptial residence tended towards patrilocality. The nucleus of each residence unit, therefore, would be related through the male line (Duff 1952: 79; Barnett 1955: 143; Suttles 1951: 273). Patrilocality, however, was not a hard and fast proscribed rule. Instances of bilocality or of residents unrelated to the household head are also known (see Suttles 1951: 345–346). Such flexibility in residence norms is an important trait and one used to illustrate mobility and family autonomy (Abbott 1972: 240).

2) social variables – in many respects, the winter household serves as the basic *social* unit of Salish society. That is, it was the central body for organization of feasts and potlatches. Since the status position of each group in the feast/potlatch complex was directly related to the prestige and wealth of its family and/or community leaders (Suttles 1951: 362–373), these traits might well be responsible for the attraction of new household members. Similarly, household heads with low status, in themselves, might discourage potential members from joining associated groups.

3) economic variables – in the past, economic motives have been considered as one of the least important factors in household composition (see Barnett 1955: 59). Individual nuclear families are reported as distinct economic entities responsible both for the acquisition and preparation of food resources (Suttles 1951: 272). However, food sharing between household members was both practised and expected, dependent upon availability. Further, food sharing was a virtuous act and one characteristic of nobility (Suttles 1960: 59). The ownership (control) of resource locales by household heads and the advantages accrued by aligning oneself with individuals of high position (i.e. redistribution of potlatch wealth), argue for a more corporate role for the household than presently maintained.

Historically, both winter villages and multifamilied households had a supplementary function, that of defence. This is manifest in fortification structures and "segmented house" forms at several sites (for examples see Suttles 1951: 322). Also, village exogamy was employed as a mechanism to ensure widespread defensive alliances. Thus, this pattern would have great effect upon household composition with a tendency for married females to originate in any number of distant locales. Moreover, Suttles (1951: 292) has suggested that, to gain maximal (defensive) spatial coverage, neighbouring communities might be "parcelled" out to individual households for specific marriage bonds. This could have been enhanced by the practice of polygyny of both normal and sororal forms.

The importance of intervillage ties through marriage would appear to have reasonable antiquity if we may take the integration of kinship terminology as a measure of time depth. Recognition of descent groups was bilateral with kin terms of the Hawaiian generational type. This was supported by a system of bilateral inheritance and primogeniture although well defined sexual differences in terms of type and amount of properties received did exist. The eldest male acquired title to resource locales (it was assumed to have been a shared family ownership), technological devices, control of elaborate ceremonial displays, family songs and prestige items. Daughters might inherit such wealth only when there were no surviving male relatives. Female inheritance, as far as may be determined, included incorporeal properties such as songs and dances as well as specific articles relating directly to female occupations (Barnett 1955: 251).

Although lacking discrete political organization, this system is cross cut and cemented by Coast Salish principles of social structure. As I have previously outlined, three definable classes are present, that of nobles, commoners and slaves. Between the former pair there existed a relatively fine dividing line and social mobility was possible to some extent. On the other hand, the slave class was distinct and unequivocal. Slaves were normally captives taken from neighbouring groups through raiding activities. Despite the fact that a slave's freedom might be gained by ransom or escape, the attached social stigma was irreversible not only for them but for future generations of their offspring.

The basis for Coast Salish stratification was, to a large measure, one of ascription. Individuals received status from their ancestry and inheritances including both resources and incorporeal property. The social personae of nobility was maintained and elevated within several formalized codes of behaviour and mandatory practices. The most notable of these has already been stated as the potlatch.

To recap the preceding description, it is necessary to reiterate that Coast Salish society was of a highly flexible nature. As with other hunter/gatherer populations, sociopolitical groupings were, at best, informally organized and fostered regional mobility. There is little evidence to substantiate the existence of a centralized political body beyond the winter household while, for all intents and purposes, it served as the basic social and economic unit. Even here, individual families tended to be distinct entities and, theoretically, were free to separate at their discretion. Widespread marriage alliances, bilateral kinship recognition and alternatives in post nuptial residence patterns illustrate the potential for economic and social autonomy on the family level. Finally, even though an ascribed ranking system was present, social mobility was possible.

Does this ethnographic pattern characterize the Marpole culture type? First, I believe there are few Northwest Coast

prehistorians who would presently question the postulate that a stratified society, similar to that of the historic period, was in existence during Marpole (see for instance Borden 1970: 101; Mitchell 1971: 54; Matson 1976e: 304). Marpole burial practices, reviewed in an earlier section, diagnostically include many interments with extensive grave goods. While several artifact types might be found, those most often associated are disc beads, dentalia, copper ornaments, stylized pendants and several items of a possible ritualistic nature. Since dentalia and copper are imported materials obtained through trade, they must be considered primitive valuables. Similarly, disc beads, pendants and many of the ceremonial goods represent extended labour investment and must also qualify as wealth beyond the subsistence base. Their combined presence in the mortuary subsystem and unequal distribution within burial populations strongly argue for differential ranking. This is further reinforced by the inclusion of females and subadults in the group with interred wealth (see Matson 1976e: 304; Tainter 1977: 332).

Peebles and Kus (1977: 431) have suggested that "ascribed" status cannot be proven simply on the basis of grave goods. Rather, one must show at least two independent levels of rank or class. Following Winters (1968), in an analysis of burials from the False Narrows site (Burley 1979a), relative values were assigned to specific grave associations and, thus, cumulative totals were derived for each burial. As tentative as such an approach may be, a comparative review of intrasite burials resulted in four separable categories of individuals. In turn, these seemed to represent two distinct social classes which mirrored the nobility/commoner groupings of the ethnographic period. Although I have yet to employ such a technique in populations outside of the False Narrows site, preliminary inspection of burial data from two other components, Beach Grove and the Hill site, illustrate a tendency toward the same pattern. Both samples are noted to have differential distribution of grave goods with a few interments including extreme wealth (D. Smith 1963; Haggerty and Hall 1976).

In other aspects of socio-political data, Marpole reconstructions are more tenuous and speculative. From the documentation of habitation features (see page 29.30) there is little doubt that the basic core of the settlement cycle, the multifamilied winter household, was in existence. Similarly, as I have already noted, integrated artistic and technologic traditions argue for a fairly widespread interaction sphere among Marpole peoples within the Gulf of Georgia. However, the degree of mobility, the level of family and household autonomy and possibly preferential marriage rules may have been considerably different. It is maintained that each has been affected to some degree by rapid culture change in the historic period. This culture change was stimulated by four consequences of Euro-American contact: population decimation; increased warfare; the introduction of a market economy, and increased interaction at trading posts by formerly dispersed aboriginal populations. It is postulated that the residuals of the former system are present in the ethnographic literature but the total integration of new characteristics has more or less relegated associated principles to societal ideals rather than requisites.

Population decimation in the immediate post contact era is well reported for regional cultures (Duff 1952, 1964). While a thorough review is unwarranted, Duff (1964: 39) marks a drop in Coast Salish peoples from 12,000 to 5,520 between 1835 and 1885. Since smallpox and fever epidemics were known to have occurred prior to 1835 (see Duff 1952: 28), it is possible to estimate a decline of well over 60 percent and possibly even as high as 75 percent. We may surmise that this situation necessitated radical adjustments both economically and socially.

At least two primary effects on subsistence patterns might be hypothesized. First, one would expect a substantial increase in the quantity and quality of available resources (for instance see Piddocke 1969: 242). Since many of the prime resources, including camas plots, clam beds and fishing stations, were controlled by families and usable only on permission, the decimation of not only families but complete villages would give access to subsistence goods previously unavailable. As a side effect, in that many subsistence pursuits were most efficiently undertaken by cooperation, one might anticipate an increase in competition among high ranking families for the services of lower order individuals. Thus, an intensification of prestige gaining practices such as the potlatch is an expected corollary and one which has been documented in the historic record (Dalton n.d.: 31; Barnett 1955: 256). As well, an amplification of slave raiding, both to increase wealth and manpower, may also be a direct consequence of competition.

The second postulated effect of decimation relates directly to preferential marriage norms and social interaction. The results on both of a 60 to 70 percent population loss can only be speculated upon. However, if the group from which one gets his wife and has extensive social exchange with is no longer in existence, of necessity he must go elsewhere. As a result, more widespread contact throughout the region must be anticipated. Further, such a situation would be strengthened by greater interaction of intraregional groups at fur trading posts. Should warfare as a result of competition be intensified, the necessity of defensive alliances might also select for extralocal marriage practices.

Of the Samish, Suttles (1951: 280) has reported:

> The local exogamy practised at least by the upper class in this area meant for a group as small as the Samish in the last half of the last century virtually tribal exogamy. Only one marriage of a Samish to a Samish is recorded in this table, and the woman had been married previously to a Klallam.

"Tribal exogamy" in a number of instances means linguistic exogamy (see Suttles 1951: 284, Table 2). Although it is possible that bilingualism and the Chinook jargon may have been present prehistorically to offset dialectic differences between husband and wife, I feel such marriage practices constitute a highly anomalous system (but see Abbott 1972: 270). For instance, if this interweb of marriage and social ties had been in existence for any length of time, then should we not expect a single homogeneous linguistic population within the region? To the contrary, virtually an opposite situation has occurred. With this being the case, I would hypothesize that, in a precontact context, marriage partners probably came from spatially contiguous groups thus leading to and supporting dialectic divergence. Such a marriage exchange network would also form a core group for social interaction and, conceivably, political organization.

In a similar manner, the possibility for several alternatives in Coast Salish post nuptial residence, on a theoretical plane, might be incongruent with other recorded traits. For example, Murdock (1949: 204) argues that bilocal residence should be correlated with parity between men and women in subsistence productivity. Ideally it would be manifest in strict *equality* of inheritance principles and status. From previous discussion, this is clearly shown not to be the case for Coast Salish. Sexual division of labour is far from strict but the settlement pattern is geared to the major subsistence exploits of males. As well, although there is a system of bilateral inheritance, females receive considerably less real property than males and are entitled to less prestigious names and ceremonies.

Polygyny, outside of the sororal form, is a culture trait totally at odds with bilocality and neolocality but favoured under conditions of patrilocality. Murdock states:

> Polygyny is relatively inconsistent with the individualism under neolocal residence and with the high and independent position of women under bilocal residence. . . .It is, however, particularly congenial to patrilocal residence, where women are isolated from their kinsmen and tend to be economically and socially inferior to men. Hence, anything which favors polygyny likewise favors the development of patrilocal residence (1949: 206).

Although one cannot fully outline the conditions favouring polygyny, the supplementary role of women in the preservation of salmon and other food stocks may well be a supportive factor. Moreover, I have already noted that, at least historically, women were producers of "pure wealth" in excess of that manufactured by males. It was the male, however, who acquired this wealth. Since both of these situations presumably existed in Marpole (preservation of food supplies and wealth), polygynous marriage practices may have a similar antiquity. Concomitantly, the option for bilocality could be argued as having more recent origins. In this light, it is interesting that Embers (1973: 179) has proposed that ". . .bilocal societies generally are societies that have recently been severely depopulated."

The final effect of European contact which may have had considerable influence on Coast Salish socio-political organization is the introduction of a wage labourer economy. Drucker (1939: 63) has suggested that a specific consequence of wage labour was an increase in social mobility. Individuals, who in a traditional setting had little opportunity, could amass extensive wealth for potlatching. This situation is most vividly described by Jenness (n.d., 58) for the Saanitch:

> . . . .when Europeans abolished slavery, furnished a labour market as open to the ex-slave and commoner as to the noble, and enabled one man to purchase with his year's wages as much food and goods as a whole village could have gathered previously in one year, then commoners and even ex-slaves began to rival the nobles in the numbers and magnificence of their potlatches, and to assume titles to which they had no legitimate claim. This inevitably led to much friction and jealousy, but the helpless nobles could no longer uphold their authority or stem the new economic and social currents that swirled around their doors.

Aside from increased social mobility, wage labour provided an alternative to aboriginal subsistence practices for slaves and commoners. Indeed, whereas this group may have been economically dependent upon the upper class in precontact times through the latter's control over primary resources (see Jenness n.d., 59), they now gained a considerable measure of autonomy. Consequently, the potential work force aligned with individual nobles would become even more depleted; therefore, once again, competition between high ranking individuals for this labour would be intensified.

To complete this discussion, a speculative model of socio-political organization is tendered. It must be emphasized that the current data base is inadequate to critically evaluate many of these inferences and, in a number of instances, it is recognized that evidence may never be collected for such an assessment. However, I do not intend a definitive statement on Marpole socio-political organization. Rather, I offer but a hypothetical model open to further interpretation and future modification.

Some degree of interaction must be expected of intra-regional Marpole peoples. In previous chapters I have noted the high degree of similarity between such dispersed Marpole

assemblages as False Narrows I, Cadboro Bay, Beach Grove and Marpole II. This similarity ranges from highly important functional categories including harpoons and barbed points to smaller items of ceremonial use and ornamentation (i.e. tear drop pendant form). I suspect that two key factors are responsible for the homogeneity. They are an exploitation of the Fraser River salmon fishery as argued previously (also see Burley 1979b) and a widespread trade network about to be discussed. However, the defined borders of the Marpole pattern do not parallel those of the Coast Salish province, and a more limited spatial extent is argued for. Moreover, this may have been combined with a tendency for less widespread marriage exchange and social intercourse. In essence, an antiquity for the regionalized kinship network so characteristic of historic peoples is questioned.

Despite the lack of seasonal documentation for most Marpole sites, I believe it safe to propose that a winter village based settlement pattern was in existence. Within these villages, as suggested earlier, multifamilied household units were present. The basis for household groupings, however, may well have differed from the historic pattern. First, since primary resource locales would have been more restricted and controlled by virtue of a greater population size, then economic motives come to the fore as influential variables. In conjunction, as Collier (1975: 50) has argued, the significance of descent based groups will increase as resources become scarce. Thus kinship principles, stimulated by economics, may have had a much greater effect on household composition. Whatever the case, it may be suggested that individual and family autonomy were considerably reduced if not totally absent. This coincides with more spatially limited marriage exchange networks.

There is no reason to assume that kinship principles have been drastically altered since Marpole times. A system of bilateral reckoning seems most probable with male primogeniture the basis for inheritance. Nevertheless, as I have already implied, the possibilities for post nuptial residence outside of the patrilocal household may not have been present. Again, this coincides with restricted autonomy. It must be emphasized that bilateral kinship and patrilocal residence are compatible and are present in many hunting and gathering systems (see Murdock 1949).

Finally, a system of ascribed ranks including at least two classes has been illustrated for the Marpole culture type. A third group, that of slaves, may also have been present. They are, however, yet to be identified archaeologically. It is further expected that, as was the historic case, the most noble lineage of a village, or, more particularly, its "head man", served as the leader. Since he also controlled the use of prime resource locales upon which lesser individuals depended, his role could have been something beyond that of a social functionary. Correspondent with this situation would be little social mobility between upper and commoner classes.

Intergroup Relations

While previous discussion, to a great extent, has overlapped with the theme of intergroup relations, here I wish to address three specific aspects: trade, warfare and the potlatch. Reconstructive interpretation again must be based on theoretical and ethnographic analogues. However, the degree to which this may apply varies considerably between topics. For instance, our present knowledge of extralocal materials in Marpole culture type sites provides a relatively supportive base for making direct inferences of exchange networks outside of the Gulf of Georgia. On the other hand, not only do we lack recognizable data on the potlatch, there has yet to be a study outlining the types of materials we should be searching for.

Trade

Within Coast Salish culture, and I believe it is extendable into the Marpole period, trading patterns may be analyzed from two basic levels. Overlapping to some degree, these include intraregional and extra-areal transactions. However, as will be pointed out, each may have played a slightly varied role in the development and maintenance of the local version of Northwest Coast culture.

Exchange on an intraregional level, because the basic materials are not foreign to a specific locale, is difficult to detect in the archaeological record. We know that for the Coast Salish at least three forms of commodities were being traded: subsistence goods; manufactured utilitarian items, and nonutilitarian objects encompassing what are best described as primitive valuables.

The importance of basic trade in everyday subsistence practices for the Coast Salish has been given little treatment in the ethnographic literature. However, it must be recognized as an extremely important aspect of their economic system and may have played an equal if not greater role prehistorically. For instance, not all intraregional village units had equal access to the wide range of coastal resources, yet, through trade, they were able to acquire a majority of the available subsistence commodities. This situation has been most aptly pointed out by Barnett (1955: 67–68):

> Eulachon ran in the Squamish and Homathko rivers but not elsewhere. The Comox and Pentlatch used the oil of this fish but had to obtain it by trade with groups to the north. The others did without it. No halibut to speak of were caught by the Tswasan, Squamish, or Klahuse. . . .Sockeye were not available to the Squamish, Klahuse, Sanetch or Nanaimo. These groups either did without them or made such seasonal shifts as the Sanetch made to obtain them. According to the Tswasan informant, there were no cod-fish near his village; otherwise cod-fish were

> known everywhere. Clams were at a premium near the mouth of the Fraser River for they could not live in the fresh water from Vancouver to Point Roberts.

Camas, the wild potato, specific types of rushes for basketry, lithic materials such as lignite and any number of other items might be added to this list.

It is probable that settlement pattern, at least to some extent, reduced the inequities in resource availability that have been itemized above. Still, if population boundaries and control over resource locales were more restrictive in the Marpole culture type as I have previously suggested, then we must anticipate a widespread exchange pattern.

Aside from raw materials, finished commodities of both a utilitarian and esoteric nature were exchanged intraregionally among Coast Salish groups. The development of part time specialists in woodworking, hunting and other occupations necessitated and supported this system.

Despite such a large scale trading network, post contact peoples lacked a formalized marketing system. Exchange seems to have been based on a system of generalized reciprocity. Nevertheless, it is notable that relatively large gatherings at major resource exploitation locales may have provided a market place-like atmosphere. This point has been implied by Barnett (1955: 68) when he described the situation at Lulu Island as a place where "all could fish and trade to mutual advantage."

It may be anticipated that marriage ties were of extreme importance in the maintenance of intraregional exchange patterns. In fact, in the long term, trade may prove to be the most powerful explanatory variable for the development of a bilateral kinship system. Sahlins (1972: 279) suggests that, in a pre-state society, trade is most likely to occur between relatives. Reciprocal exchange is based on moral codes of behaviour which, at times, necessitate the acceptance of "useless" materials in order to perpetuate the system (e.g., Sahlins 1972: 309–311). Moreover, since there appears to have been a lack of standardized exchange rates, it was necessary to trust the fairness of trading partners to eventually even out gross inequities of individual contractions. Only through kinship are such requisites assured.

Coast Salish extralocal trade, again, would appear to be of a linked reciprocal nature. Duff's (1952: 95) descriptions of Upper Stalo dealings with the upriver Thompson and downriver Coastal groups provides us with a classic example of such a model. This pattern might equally describe transactions during the Marpole culture type. He states:

> To the Thompsons they took dugout canoes, dried salmon, rush mats, and goat wool blankets. In return they received soopalalie oil, dried saskatoon berries and Indian hemp. The canoes, at least, were taken up at low water usually by people who had relatives or friends among the Thompson. For trade with downriver groups, dried salmon was the most important commodity, in return for which they obtained fish, wild potatoes, and sometimes seal skins.

Ideally, groups at the mouth of the Fraser would be linked to villages on the islands which, subsequently, traded to populations on the west coast. Partial effects (north/south and east/west) of this chain network are documented by Jorgenson (1969).

Direct evidence for trade outside of the Gulf of Georgia during the Marpole period has been cursorily dealt with in other discussions. To briefly recount, frequent recovery of Oregon obsidian, west coast dentalia, and Fraser Canyon nephrite and soapstone illustrate the intensity to which it was being practised. To this list we must also add copper although, as I have noted before, it tends to be a rare commodity and its source is unknown.

Aside from basic raw materials, it can be easily speculated that Marpole exchange with external populations incorporated such food resources as cited by Duff above as well as finished manufactured items. Nephrite adze blades out of the interior and basketry from the west coast may be prime contenders for the latter (Suttles 1951: 318). Further, there seems to be a strong possibility that items such as human and zoomorphic figurine bowls came into the region as a finished commodity (Duff 1956; Grabert and Larsen 1975).

It is difficult to determine exactly what Marpole peoples at the mouth of the Fraser may have been giving in return for such extralocal items. Since it is both possible and probable that a surplus of preserved foodstocks as salmon and clams were obtained, these may have formed the predominant basis (see Burley 1979a). In addition, it must be remembered that spatially, Marpole peoples were virtually "middle men" between the interior and the west coast. Such a commodity as dentalia, an extremely valuable item for many historic peoples (Luciw 1976), was traded for and passed on. The intervening increase in value from the western edge of the region until it reached the opposite periphery can only be speculated upon. A reverse situation existed for nephrite, soapstone and obsidian.

I have suggested that intraregional reciprocal exchange requires a formal code of conduct which is safely guaranteed through marriage alliances. While intermarriage could also have been the case of extralocal trade by Marpole groups on the periphery in dealing with adjacent peoples, an additional factor may have played a significant role. This factor is the mercantile element of the Northwest Coast, the Chinook. Immediately to the southeast of the Gulf of Georgia, it is possible that the Chinook controlled the majority of exchange in that direction. Consequently, this may have led to a standardization of exchange rates. Such a characteristic is a prime requisite in external reciprocity where one must deal with foreign elements (Sahlins 1972: 278).

The importance of exchange in nonutilitarian items and imported exotic materials to the development and maintenance of Marpole social organization is best left to a later discussion. Here, however, it must be noted that reciprocal exchange on both an intra- and extra-regional scope is difficult without such media. Specifically, Pires-Ferreira and Flannery (1976: 290; also see Rappaport 1968) argue that goods of this nature act as "systemic regulators" for exchange in utilitarian and subsistence materials. They provide alternatives for trade when one partner, temporarily, may not have a need or want for basic commodities being produced by the other. They insure future exchange relations. This trait could be particularly important for explaining external transactions in Marpole where marriage alliances may not be expected.

To summarize this discussion of possible exchange patterns and mechanisms during the Marpole culture type, I see two distinct levels. Intraregionally, trade is expected to have been intense and widespread. This was necessitated by the inequities of resource distribution and part time specialization. Marriage may have been the prime factor in this network. On an extraregional scope, we have definite evidence that materials from both the interior and west coast were being traded for and passed on in other directions. It is hypothesized that trade in utilitarian materials was maintained by trade for other nonutilitarian or exotic items. The mechanics of both intraregional and extralocal transactions are assumed to have been of a linked reciprocal nature although the possibilities of Chinookan entrepreneurs cannot be ruled out.

Warfare

We have no substantive archaeological evidence, either from burial populations or physical structures, for large scale warfare during Marpole. However, historic Coast Salish culture was permeated with intervillage conflict, raiding for slaves and looting (Barnett 1955: 266–267; Duff 1952: 96; Suttles 1951: 319–324) and is illustrated by such protective structures as trench embankments and segmented houses as well as widespread marriage alliances for defense. Whether this pattern may be extended back into the Marpole culture type must be assessed.

Historically, the most apparent enemy of the Coast Salish was the southern Kwakiutl. Despite the fact that this conflict may have considerable antiquity, its magnitude would appear to be intensified in the historic period. First and foremost, the introduction of firearms is expected to have significantly altered the outcome of traditional warfare practices. Earlier I have cited the example of Kwakiutl displacement of Comox speakers as an ethnographic case of population replacement. Without denigrating the usefulness of this situation to illustrate the potential for population fluidity, the apparent ease with which it occurred may be related to the superior position of the Kwakiutl by virtue of their possession of guns (Duff 1964: 59). Similarly, Suttles (1951: 320) suggests that slave raids by southern Kwakiutl may have been a serious threat only after they obtained firearms. The devastation which could now be wreaked by even the smallest of war parties must have provided a compounding effect of reprisal after reprisal.

A second possibility that may have led to increased conflict in the post contact period has been outlined by Collins (1974: 140). She states:

> Because of trading posts, notably Victoria (which was founded in 1848), the northern peoples, such as the Haida, Kwakiutl and Tsimshian were drawn more frequently into the Gulf of Georgia and Puget Sound than ever before. These trips often combined raiding with trading or working.

Trading posts would not only provide an incentive for movements south and, consequently, slave raiding, but undoubtedly brought together in face to face contact traditional enemies and foreigners. The net result could be little other than aggravated friction.

Aside from increased conflict with groups outside of the Gulf of Georgia, Coast Salish intervillage feuding also may have been amplified. Again, the situation of increased contacts at trading posts and other centres could have served as a prime stimulant. In addition, I have earlier suggested that, following population decimation and the introduction of alternatives to the subsistence economy, a heightening of competition for the available labour force may well have been established between high ranking individuals. In itself, this provides at least two major incentives for slave raiding. On the one hand, slaves were wealth and so increased a noble's prestige. On the other, they added to the working population under one's command and, indirectly, helped to gain greater surpluses or ensure adequate productivity.

Collins (1974: 43) has suggested that, once begun, blood feuding among the Skagit was difficult to stop due to a lack of internal conflict control mechanisms. More important, the social controls which were present began to break down when alternatives to traditional lifeways were available for the younger generations. In particular, the influence of elders was considerably lessened. I believe this situation probably characterizes the Coast Salish province as a whole.

From the preceding discussion I do not wish to give the impression that either external warfare or feuding was absent during Marpole. Rather, the intention has been to simply illustrate the problems of accepting a direct analogy. Still, if we assume less mobility throughout the region and less familial and individual autonomy, then less conflict would be an expected correlate. Of course, if a displacement model for the origins of Marpole is proven, by its

nature it implies a certain degree of conflict. Since aggression may be expressible in the archaeological record in a number of forms (i.e. osteological remains, defensive features), further research could answer the basic questions posed here. At the least, it might serve to stimulate additional hypotheses of Marpole and historic Coast Salish culture change.

Potlatch

As Drucker (1965: 55) has defined it, a potlatch is "a ceremonial given by a chief and his group, as hosts, to guests composed of another chief or chiefs with their respective groups, at which the guests were given wealth goods". Potlatches differ from feasts by the distribution of materials other than food items (ibid.). To further extend this definition, a potlatch is considered to be a formalized exchange of wealth between specified component groups in ceremonial recognition of major rites of passage, life crises, inheritance and similar events.

Of all topics in Northwest Coast anthropology, the potlatch has received the most concentrated scrutiny. Several relatively diverse frameworks are now proposed to explain both its function and systemic integration into regional adaptations. While an assessment of each is beyond the scope of this study, the widespread acceptance of a functionalist-ecological model by many Northwest prehistorians necessitates at least a cursory review.

The functional-ecological model, originating with Suttles (1960) and followed by Vayda (1961), Piddocke (1969) and Donald and Mitchell (1975), views the Northwest Coast resource base not as one of extreme abundance, but extreme abundance at unpredictable intervals. It is marked by fluctuations in certain key subsistence variables which are expected to have had a profound effect on indigenous cultures. In this light, the potlatch is argued to be a major mechanism of redistribution whereby surplus foodstocks in times of plenty are converted into wealth and ceremoniously given away. This act restores the purchasing power, so to speak, of other communities who may be undergoing hardship or low points in their subsistence cycle. For the host, status is gained and there is an assurance of participation in future potlatches given by his guests. Suttles (1960: 304) best describes the workings of this system as one enabling "the whole social network, consisting of a number of communities, to maintain a high level of food production and to equalize its food consumption both within and among communities".

Although the potlatch, in historic times, may have actually been a major means for equalization of productivity among Coast Salish communities, when one attempts to argue that its origins lie totally in a cultural system's adaptive response to fluctuating environmental factors, certain questions arise. I have already proposed that, for groups dependent upon the mainstream Fraser River salmon runs, the influence of fluctuations from this particular resource would be negligible. If there are major effects, they will occur in peripheral locales where subsistence patterns are centred around smaller runs with less numbers of species. Moreover, if escapement trends reported by Donald and Mitchell (1975: 332) for southern Kwakiutl territory may be extended southward, it is argued that the lower the median salmon escapement, the greater the fluctuation from year to year. It would follow that those who have the resource locales best suited for surplus production also have the most predictable resource base. Conversely, those within areas of low resource potential are the most susceptible to fluctuations.

For the potlatch to have originated as a specific cultural adaptation to fluctuating environmental variables, it must be assumed that if a hypothetical Group A is experiencing a low point, a Group B is producing a surplus. Group A may then cash in on "banked" status, receive wealth and eventually trade for subsistence goods. The situation described above, however, suggests that if Group A is in a high productivity zone and Group B is in a more marginal region, then it is improbable that Group B will ever turn a surplus sufficient to offset fluctuations which may be affecting Group A. Further corroboration is present by the direct correlation of salmon productivity and population size (Sneed 1971; Donald and Mitchell 1975). With such a situation being the case, the motives for Group A's participation in the potlatch system could hardly be the expectation (either recognized or not) of some future equalization payment. In effect, Group A's involvement would be altruistic unless, of course, Group B's resource pool included commodities unavailable in Group A territory. If the latter, then reciprocal exchange and associated processes would be supporting this pattern.

To relate this to the Marpole culture type, I must first argue that it is a faulty assumption to suggest a direct correlation between resource fluctuation and the presence of the potlatch. In essence, while year to year salmon productivity in Marpole may have been irregular, the potlatch as a means of redistribution is not a necessary requisite. If the potlatch were present, I suspect it may have been in a less extreme form. Perhaps its origin lay in a simple feast associated with the redistribution of productivity to those who directly partook in the acquisition of surplus (Langdon 1976). Equally plausible, it may be tied to the development of a reciprocal exchange network for trade.

Although positive archaeological data to support this position are lacking, it is proposed that the inclusion of wealth in burial practices may be contrary to the principles of the potlatch. The potlatch, as delineated by Drucker (1965: 55), tended to be a corporate event on

either a household or village level. A successful host not only enhanced his position but also that of his extended family and associated others. To take potlatch wealth out of the system by interment in mortuary practices would undoubtedly have some effect on a group's position by jeopardizing its future ability to potlatch. In this regard, it is notable that grave inclusion of any consequence were all but absent in Coast Salish burial practices. However, such a hypothesis would be applicable only to a precontact and early historic situation where available wealth was more restricted. With a possibility for massive accumulation of Euro-American goods through the fur trade and wage labour, a loss of valuables could easily be recouped. Also, as Barnett (1955: 256) notes, the system becomes so hypertrophied in the late historic context that a rationale for its existence is difficult if not impossible to determine.

To briefly summarize, although the possibilities for a potlatch type ceremony during the Marpole culture type cannot be ruled out, if it were present, I would suggest it to have somewhat of an altered form and a more restricted scale. Further, despite the fact that a functional-ecological model may adequately explain the potlatch in its historic context, it is suggested that such a model may not fully account for potlatch origins. Consequently, a direct correlation between fluctuations in subsistence resources and the presence of a redistributive potlatch is not a requisite. Finally, the interment of wealth in burial practices of the Marpole culture type is seen to be contradictory to the general maintenance of a precontact potlatch system.

Ritual Behaviour

Driver and Massey (1957), among others (Sahlins 1958; White 1959; Jorgenson 1969), have suggested that culture change should first be manifest in economics and technology, second in social organization and only third in ritualistic and religious behaviour. By virtue of such an evolutionary process, we might expect Coast Salish ceremonialism to reflect that of the Marpole culture type. At the least, it serves as an interpretive model from which analogous practices may be inferred through similar material culture associations.

The basis of Coast Salish ritualism lay in the possession of a spirit power (Suttles 1951: 327–397; Jenness 1955: 48–64). Power might come in some unexpected manner or be specifically sought after in a vision quest. A spirit could be derived from any number of inanimate objects, living things, mythological beings or forces of nature. Normally, acquisition of power brought with it a spirit song and sometimes a related dance. Dependent upon one's spirit, special abilities might also be instilled. Consequently, spirits and specialization would tend to be correlated (Jenness 1955: 50–56). Suttles (1951: 330), for example, notes the association of a wolf spirit with deer hunting and a blackfish (killer whale) spirit with capturing sea mammals. Also, as I have previously mentioned, within individual trades such as woodworking, special powers were not only desired but sometimes mandatory.

There appear to have been two qualities of spirits, those associated with the layman and those of the shaman. Shaman power always had an associated song and was stronger than that of the nonshaman. Shamans had the abilities to grasp souls, cure sickness through disease extraction, communicate with ghosts, provide spells, or see distant objects and events. Shaman power was both revered and feared. Those with excessive power would be given segregated living quarters outside of the household to which they belonged. Although the majority of shamans were men, certain women might also gain this power.

The expression of Coast Salish ritualism took place on two basic levels. The first, that of day to day acts and major rites of passage, was dominated by ritual cleansing and purification. The "smell of humanity" was offensive to most spirits and had to be scrubbed away (Suttles 1951: 327–328). In a similar fashion, the undertaking of individual acts might be associated with sexual abstension, food taboos and the like.

The second significant level of ritualistic behaviour comes in the form of winter ceremonials. During the winter months when major subsistence exploits were at a minimum, a person's spirit "welled up" inside him creating an outburst of song and dance (Jenness 1955: 41). Should this not be expressed in a proper manner, it would be dangerous to the health. Spirit dancing, although impromptu in the sense of formal organization, was carried out on the majority of winter nights with ever changing hosts. Among most Coast Salish groups, dancers required a specific knowledge and initiation ceremonial (Jorgenson 1969: Appendix C).

The concept of power and the association of ability and particular spirits may possibly be seen in the Marpole artistic tradition. Art not only has an aesthetic value but is symbolic representation. Thus, zoomorphic realism in Marpole may be one person's statement of spirit power, charms to influence some future act, or objects associated with a particular ritual. For instance, ethnographically the artistic expression of a salmon serves to illustrate this point. It might represent a spirit power derived from the dogfish or sockeye (Jenness 1955: 53); it could be meant to affect the outcome of a fishing expedition; or, perhaps, it is related to the first salmon ceremony (Suttles 1951: 172). Of course, it could be any combination of the three. It is noteworthy that the salmon head is a conspicuous Marpole motif (see Burley 1979a).

To provide a more specific example of a possible power association during Marpole, we may refer to a single burial from the False Narrows site (Burley 1979a). This individual is an adolescent (?) male interred with a variety

of wealth items. Since wealth reflects status, it may be assumed that the individual had a consequential position in the social hierarchy. Among the grave goods are what has been interpreted as whale bone armour and an elaborate lignite pendant representative of a beetle. The protection or covering of the armour seems analogous to the hard shell of the beetle. Both could be indicative of warrior power.

This particular burial, although other examples could be cited from within the False Narrows population, seems to provide a link between power and wealth. Such an association is characteristic of the Coast Salish and explicitly described by Suttles (1976: 8):

> The value of the vision, the ritual word and the ancestors was reflected in wealth. In native theory, they were responsible for one's having wealth and so having wealth demonstrated their presence and efficacy.

Wealth, in the form of beads, pendants, art and so on were ". . .social announcements, statements of power addressed to the members of the community and, possibly, to all the animate and inanimate powers that permeate the Salish world view" (Stryd 1976: 18). Barnett (1955: 76) supports this position when he notes that body ornaments were not part of everyday dress but were worn only on ceremonial occasions.

The decorative art of Marpole, at least that found on harpoons, clubs, hafts and a host of other functional implements, must also be interpreted as statements of power. As Stryd (1976: 18) has suggested for interior Salishan art, "these decorations transfer the supernatural powers of the owner to the tool and the tool uses that power to function better or to make a greater impact on its surroundings". A stone fish club from False Narrows, in the design of a seal, could be indicative of such a transference (Burley 1979a). Similarly, three harpoon points from the Marpole site are decorated with varying forms of sea animals (Smith 1903: 183) whose supernatural abilities may have provided aid in sea mammal hunting.

On a less abstract level, specific inferences of Marpole ceremonial and ritualistic practices may be drawn. They are based on a common presence of idio-technic items with Coast Salish culture. Among the most important of these is the stone bowl complex and, in particular, the seated human figurine bowl. Duff (1956: 56–59) outlines several possible uses and meanings of these implements as suggested to him by informants. All, however, associate it with spirit power, the shaman and water. The water served as a medium for the seer(ess), purification and curing. Both Borden (1950: 23) and Mitchell (1971: 54) liken the "starved appearance and frequently upturned face and open mouth" on many of the receptacles to a supernatural being among the Kwakiutl, the *Tso noqua.* Mitchell (citing Harris 1901) points out that a similar cannibal ogress was present for the Coast Salish.

The lack of recorded provenience for the majority of figurine bowls (Duff 1956: 42–43) prohibits conclusive statements as to meaning in a prehistoric Marpole context. One, a specimen recovered from the Marpole site, was seated atop a burial cairn (Hill-Tout 1948) while several others of interior origin are reported as grave goods (Stryd 1976). The above interpretations, therefore, gain some measure of credence.

Suttles (1976: 21) has suggested that scallop shell rattles may be part of the ritual paraphernalia of the *sxwayxwey* dancer. Since rattles are found within interior plateau prehistoric assemblages, he goes on to argue for the *sxwayxwey* presence in a precontact situation. Scallop shell rattles are also known from Marpole components at False Narrows (Burley 1979a) and Beach Grove (Abbott 1961) and could illustrate a similar dancing society. Interestingly, Barnett (1955: 278) argues that the *sxwayxwey* diffused outward from the mouth of the Fraser River, thereby suggesting it to be a local development. We might now add time depth to this ceremony. The *sxwayxwey* is a ritual cleansing or purification performance (see Suttles 1976: 20–21).

A variety of other objects associated with ceremonial activities are frequent occurrences in Marpole culture type collections. Sucking or drinking tubes are ritualistic implements used by both males and females to protect their teeth during the transition into puberty (Barnett 1955: 151, 167). Dentalia headresses, a possible example of which might be present in a female burial at the False Narrows site, are reported to have been worn by menstruating women. Graphite and ochre have a widespread employment in the ethnographic period as paint for a large number of dances and ceremonies and, again, they are abundantly found in Marpole collections. Possibly the only major class of implement which I take to be of a ceremonial nature in Marpole that does not appear to have a counterpart in Coast Salish culture is that of the large well made chipped stone biface. Their frequent occurrence as burial goods and the exotic nature of most base materials suggest a significance beyond functional or aesthetic qualities. Furthermore, similar implements were ceremoniously used by historic Californian groups for ritual purposes and wealth (Kroeber 1951).

That a major similarity in religious practice between Marpole and recent times exists is, I believe, indisputable. This hypothesis is based on continuity of style and symbolism. However, we may note at least one primary difference, the implications of which are presently unknown. This difference lay in the form of mortuary practices. Whereas a variety of subsurface midden interments (box, pit, cairn) characterize the Marpole period, surface inhumation in burial houses, canoes, boxes and/or trees is the predomin-

ant ethnographic Coast Salish practice (for general descriptions see Suttles 1951; Duff 1952; Yarrow 1880; Barnett 1955; Haeberlin and Gunther 1930). Moreover, I have reported that the lavish display of wealth interred with some individuals in Marpole has a temporal distribution limited to that culture type. Whether such a shift mirrors a change in religious belief in the nature of afterlife or soul cannot be answered. Nevertheless, a possible explanation for the lack of historic grave goods might well be found in the growing importance of wealth within the corporate group, the ability to potlatch.